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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/736,896	12/17/2003	Boris A. Maslov	76897-018CIP3	4040

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PROSKAUER ROSE LLP
1001 PENNSYLVANIA AVE, N.W.,
SUITE 400 SOUTH
WASHINGTON, DC 20004

EXAMINER	
COLON SANTANA, EDUARDO	
ART UNIT	**PAPER NUMBER**
2837	
MAIL DATE	**DELIVERY MODE**
12/14/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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Office Action Summary	Application No.	Applicant(s)	
	10/736,896	MASLOV ET AL.	
	Examiner	Art Unit	
	Eduardo Colon Santana	2837	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *26 October 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *7,10-25 and 39-41* is/are pending in the application.

4a) Of the above claim(s) *11-13 and 39-41* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *7,10 and 14-25* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *10/26/2007*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☒ Other: *Detailed Action*.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10/26/2007 has been entered.

2. Applicant's arguments with respect to the claims have been considered but they are still not persuasive. See Response to Arguments below.

Information Disclosure Statement

3. The information disclosure statement (IDS) submitted on 10/26/2007 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Election/Restrictions

4. Previously submitted claims 11-13 and newly submitted claims 36-41 are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: The claims are directed to a specific type of vehicle, being a hybrid or series hybrid electric vehicle, in which an internal combustion engine works

together with an electric motor being power by a battery. The original claims where directed to a car or other vehicle or an electric vehicle not requiring an internal combustion engine such as Hybrids.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 11-13 and 36-41 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner

presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 7, 10, 18, 21, 24 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Li U.S. Patent No. 6,278,216.

Referring to claims 7 and 10, Li discloses a vehicle motor for a motor vehicle having two wheels and one in-wheel electric motor (see all figures and respective portions of the specifications). Although Li only discloses an in-wheel electric motor, a near-wheel, a direct-drive or a mechanically link are also well-known in the art. Li further depicts a motor control system (see figure 12) having a micro-processor (MPU). However, Li does not explicitly describe that the control system is dynamically adapted. However, Li depicts from figure 12 various sensors (i.e. brake lever sensor, pedal sensor, speed sensor, etc.) which interact directly with the microprocessor (MPU), making it clear that there's a dynamic adaptation that results from an active signal. Moreover, Li states (see Col. 5, lines 16-20) for example that when the brake system is operated, the brake sensor communicates with the MPU causing the MPU to cut off battery power supply to the motor. It would have been obvious to one of ordinary

skill in the art having a control system with the processor (MPU) as taught by Li to be dynamically adapted to any user inputs (i.e. speed, brake, etc.); any operating conditions (i.e. temperature) and any operating parameter (i.e. torque, current, voltage) for the purpose of forming a control scheme that would adapt efficiently with regards to its input commands. In addition it has been held that the recitation that an element can be "adapted to" perform a function is not a positive limitation but only requires the ability to so perform. It does not constitute a limitation in any patentable sense. See *In re Hutchison*, 69 USPQ 138.

As to claims 18 and 21, Li discloses in figure 12 a battery connected to the electric motor.

Referring to claims 24 and 25, Li discloses a controller (MPU) that is operatively connected to the electric motor. In addition, figure 12 depicts user inputs (i.e. brake level sensor, pedal sensor) that interface with the controller (MPU).

7. Claims 14-17 are rejected under 35 U.S.C. 103(a) as being unpatentable and obvious over Li in view of Okuda et al. U.S. Patent No. 5,973,463.

Referring to claims 14-17, Li discloses a vehicle having two wheels and at least one electric motor including an in-wheel motor. However, Li does not describe a vehicle having at least four wheels. On the other hand, Okuda discloses an electric vehicle, having four wheels, disposed at a corner of the vehicle, wherein at least one electric motor is operatively connected to two or more wheels disposed

at a front or a rear of the vehicle (see figures 1, items 10RR, 10RL, 10FR, 10FL, 12L and 12R). It would have been obvious to one of ordinary skill in the art at the time of the invention to apply the principals taught by Li with a two wheel vehicle on a four wheel vehicle as shown by Okuda for the purpose/advantages of increasing reliability on a system that's in use on a daily basis, such as cars.

8. Claims 19-20 and 22-23 are rejected under 35 U.S.C. 103(a) as being unpatentable and obvious over Li in view of Stulbach U.S. Patent No. 6,082,476.

Referring to claims 19-20 and 22-23, Li discloses a battery (see figure 12), however does not describe that the battery is connected to a generator or that the generator is disposed in the vehicle. Nonetheless, Stulbach discloses a self-renewing electric vehicle (see figures 1 and 2), having electric motors (100 or 200) being power by batteries (1-3), wherein each battery is electrically connected to a generator (10-12) and the generator is disposed in the vehicle. It would have been obvious to one ordinary skill in the art at the time of the invention to use generators as taught by Stulbach within the teaching of Li, for the purpose/advantages that the generators would provide a regular charge of the battery, which would increase the torque of the electric motor and at the same time provide the car with longer travel distances without the need to even recharge batteries.

Response to Arguments

9. Applicant's arguments filed on 10/26/2007 have been fully considered but they are not persuasive.

It is believed that the prior art of record reads on claims 7 and 10 as previously presented.

In regards to applicant's arguments that Li fails to show, describe, teach or suggest a vehicle having a motor control scheme that can be dynamically adapted is not persuasive. See rejection above. Applicant's arguments amount to a general allegation that the claims define a patentable invention (adapted control scheme) without specifically or clearly pointing out the patentable novelty which he or she thinks the claims present in view of the state of the art disclosed by the references cited or either how the "language" of the claims patentably distinguishes them.

Applicant's arguments that the Office has not provided the "clear articulation of the reason(s) why the claimed invention would have been obvious" are bogus and uncertain. Under the TSM test, a claimed invention is obvious when there is a teaching, suggestion, or motivation to combine prior art teachings. The TSM may be found in the prior art, in the nature of the problem, or in the knowledge of a person having ordinary skill in the art. According to the Supreme Court, the TSM test is one of a number of valid rationales that could be used to determine obviousness. It is not the only rationale that may be relied upon to support a conclusion of obviousness (emphasis added). See *KSR International Co. v. Teleflex Inc.*, 550 U.S., 82 USPQ2d 1385 (2007). In this case the claims would in addition have been obvious because a particular known technique (dynamic control

schemes) was recognized as part of the ordinary capabilities of one skilled in the art.

Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eduardo Colon Santana whose telephone number is (571) 272-2060. The examiner can normally be reached on Monday thru Friday 7:00am - 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lincoln Donovan can be reached on (571) 272-2800 X.37. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center at 866-217-9197. If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Eduardo Colon Santana
Patent Examiner
Art Unit 2837

/ECS/
December 3, 2007